247 Pearl Street
Zoning Permit Application Narrative

Description of the Proposed Development and Proposed Use

The proposed redevelopment of 247 Pearl Street will create much needed new housing on a currently vacant parcel in the Residential High Density zoning district. The property was formerly home to a historic building that had most recently been used as dental offices prior to being destroyed by a tragic fire in 2011. The ~0.80 acre parcel presently contains a large surface parking lot accessed by a shared driveway with 253 Pearl Street on the east side of the parcel and a secondary private driveway along the west lot line. The rear portion of the lot is elevated relative to its neighboring properties with increasingly steep embankments as it extends farther back from its Pearl Street frontage. The existing lot coverage is 58.4% and the former building coverage was 10.1%.

This redevelopment project endeavors to fulfill the purpose of the Residential High Density district that is "intended primarily for high density attached multi-family residential development. Development is intended to be intense with high lot coverage, large buildings, and buildings placed close together."
The proposed building contains approximately 24,000 SF of finished aboveground space with a partial basement used for secure tenant storage, long-term bicycle storage, common laundry facilities and utility space.

The proposed development consists of a three story, 29-unit multifamily residential building with a building coverage of 24.4%. The proposed development density is ~36 units per acre with a lot coverage of 64.9% in a zoning district that encourages dense residential development of up to 40 units per acre (or up to 80 units per acre with bonus), with a maximum lot coverage of 80% (or up to 92% with bonus).

The proposed building footprint has been revised since sketch plan review to meet the side setback requirement of 10% of lot width, which increases from 8.9 feet along the front portion of the lot to 14.9 feet where the lot increases in width near the rear of the proposed building. The building footprint has also been shifted to align with the front setback of 7.4 feet, which is calculated as the average of the adjacent lots on either side plus or minus 5 feet. The rear setback requirement of the Residential High Density District is a minimum of 20 feet or 25% of lot depth up to a maximum of 75 feet; the 75 foot maximum applies to this deep parcel.

The maximum building height in the RH district is 35 feet, or up to 45 feet with bonus. The proposed building height is 34 feet, 3 inches to the main flat roof,

with an elevator and stair towers, air source heat pump condensers, and screen walls projecting beyond 35 feet. The area of these elements higher than 35 feet represent approximately 6% of the total roof area, which is less than the 10% maximum allowed under Article 6 of the Ordinance.

With the exception of Main Street, the Pearl Street corridor is the most significant east-west corridor and gateway into Burlington from destinations east of the city center. The street is lined with many large multi-family residential buildings as it passes though the Residential High Density district with some grandfathered non-conforming commercial uses interspersed. The 247 Pearl Street property itself has commercial uses immediately to the east (mixed use building with offices at the street), west (Averill Dental Practice) and north (Pearl Street Beverage and Lakeview Pharmacy). Other properties to the south and west are a mix of multi-family and single family residences.

The entrances to the building will be located on the north elevation oriented toward the Pearl Street public sidewalk and mid-way along the east elevation where a sidewalk provides access to the parking located along the shared driveway and toward the rear of the lot. The proposed site plan re-uses the current shared driveway to the east of the former building and eliminates the other existing driveway and curb cut that runs along the west edge of the property. A green space of lawn and landscape plantings will extend from the front face of the building to the sidewalk.

Traffic Generation and Parking Analysis

Based on the applicants' experience, the close proximity to downtown and major institutions is expected to attract tenants that are more apt to bike, walk, use public transportation, and use CarShare. The proposed site plan includes a total of 43 functional off-street parking spaces. 9 of these spaces are the second space in a tandem configuration. Existing CarShare pods are located on Pearl Street at the intersection of Church Street 0.2 miles from the site and at the Marketplace Garage at Cherry and South Winooski also 0.2 miles from the site. 5 additional CarShare pods are located within a half-mile of the site. The site is also located within easy walking distance of the CCTA bus terminal and 7 bus routes pass directly by the site, with 7 more around the corner on South Union and many others passing only a block or two away.

Under current zoning two parking spaces are required for each apartment - regardless of bedroom size - yielding a baseline requirement of 58 parking spaces for the apartments. However, the new apartments will be comprised of smaller unit types. The proposed design includes 10 efficiency/studio units, 8 one bedroom units, and 11 two bedroom units. This is a total of 40 bedrooms with 43 functional parking spaces.

Here is a summary of our required vs. proposed parking and our waiver request:

- 58 spaces required by the Ordinance (29 units x 2 spaces per unit)
- 43 spaces provided functionally (includes 9 tandem spots)
- 34 spaces provided technically (subtracting tandem spots)
- 15 space waiver requested functionally (26% waiver)
- 24 space waiver requested technically (41% waiver)

We are requesting a technical parking waiver of 24 parking spaces, but functionally it is a waiver of only 15 spaces given the 9 tandem spaces proposed. This waiver request is reasonably given the site's walkable and bikable location, excellent public transit access, proximity to 12 CarShare pods, and smaller unit types. The proposed site plan accommodates 43 functional parking spaces within the 247 Pearl Street lot. We have studied alternative parking layouts and have determined that the current site plan accommodates the most parking possible given the multiple site constraints. Underground parking would require a long ramp down to the basement level of the building, cutting off access to any potential for surface parking on the rear of the site and resulting in a maximum of approximately 20 parking spaces. Our parking configuration concentrates parking in the rear of the site and behind the building, in line with the goals of the Ordinance.

Our management experience shows that a high-density neighborhood location with small units in close proximity to downtown requires less parking. Many sites in the neighborhood function without dedicated off-street parking and the immediate residential abutters to the west and south have their own off-street parking in either driveways or surface parking lots located behind the buildings, respectively. We are also providing bike storage in the basement with the ability to accommodate more than 60 bikes; outdoor short-term bike storage for tenant convenience and visitor use; and we promote CarShare membership and CCTA transit use to our tenants.

In addition, the Planning Commission is giving serious consideration to a change in the parking regulations for residential uses. For this proposed project, the new regulations would require:

- 0.33 parking spaces x 18 studio & one bedroom units = 6 spaces
- 1 parking space x 11 two bedroom units = 11 spaces
- Total spaces required = 17 spaces

In summary:

1. The site is located close to downtown amenities and employment opportunities
2. The site is located close to major institutional amenities and employment opportunities (UVM, Fletcher Allen, Champlain College)

3. Management promotes, walking, biking, public transportation and CarShare
4. Design includes a surplus of secure bike storage
5. Direct access to CCTA bus routes
6. 12 CarShare pods in close proximity to the site
7. Potential future parking regulations would require only 17 parking spaces, significantly less than the 43 functional spaces proposed to serve the 29 new apartments

247 Pearl Street Parking Management Plan

Given the high-density neighborhood location in close proximity to downtown and the major institutions, we are confident that the project will attract tenants that are more apt to bike, walk, use public transportation and use CarShare. The 43 off-street spaces available to tenants of the new building are sufficient to provide one space per studio and one bedroom unit with two spaces available to all two bedroom units. Parking will be actively managed and leased separately from the apartments. This way tenants who do not own a private vehicle are not automatically charged for parking that they are not using. Parking spaces that are freed up by tenants without private vehicles can be leased to other households in need of additional parking.

The proposed vehicular access is from Pearl Street with traffic entering and exiting the site at the shared driveway located at the east side of the lot. The new building will have an entry mid-way down the east facade by the elevator to allow for easy access to the secure bike storage located in the basement. Short term bike storage will be provided in racks located adjacent to the building and near to each entrance, with DPW approval pending for additional bike racks or hitches located within the City greenbelt.

Phasing and Construction Schedule

The redevelopment is proposed to occur in a single phase with initial site work and foundation construction occurring first, immediately followed by re-grading of the rear portion of the site including construction of the retaining walls, with vertical construction completed following and final utility connections and finish site work including landscaping at the end of the project. The overall construction schedule is anticipated to take approximately 12 months, with a target start date of Fall 2014 (dependent on zoning approval, Act 250 approval, and issuance of a building permit).

Storm water management

The approach to long-term stormwater management is to reduce the amount of surface runoff from current condition through installation of subsurface infiltration infrastructure, while stabilizing existing erosion on the steeper embankments through re-grading, installation of retaining walls and improvement to stone lined dispersion/overflow area. The total area of impervious surfaces will increase somewhat from the current level of 58.4% to 64.9%.

The site's impervious areas currently drain to the south, southwest and southeast, over the embankments surrounding the parking area, with some under-drains day-lighting mid-way down the embankment and eventually entering a catch basin located just off-site to the south.

The degree of infiltration possible on the site will be subject to possible environmental constraints related to a single detection of petroleum contamination that was discovered during geotechnical soil borings (24' deep at the eastern edge of the site). Additional test wells are being installed to determine the extent of this contamination across the site and verify the suspected off-site source of the petroleum so the proposed infiltration system can be approved by the Vermont DEC.

A construction period stormwater and erosion control plan will be employed that complies with the City of Burlington Department of Public Works and Planning & Zoning guidelines. Additional information on stormwater and erosion control is included in the materials from our civil engineer, Peter Smiar of Civil Engineering Associates.

Capacity of municipal utilities, services & existing or planned community facilities

Based on the similarity of the proposed uses to recently approved projects, the stated planning goals of the Residential High Density district and initial feedback obtained from DPW, the applicant's understanding is that there is more than sufficient capacity of municipal utilities, services and existing or planned community facilities to accommodate the proposed new development.

Utilization of renewable energy resources

The applicant is working with BED, Vermont Gas and Efficiency Vermont to minimize energy usage in the proposed building though EnergyStar certification and installation of the most energy efficient available technology for primary space heating and cooling (cold-climate air source heat pumps). The building design will also provide for future installation of rooftop solar through adequate structural load capacity and conduit run from the basement utility room to the roof when it becomes economically feasible to do so.

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- APPROXIMATE PROPERTY LINE
- APPROXIMATE SETBACK LINE
- IRON PIN FOUND
- CONCRETE MONUMENT FOUND
- GRAVITY SEWER LINE
- FORCE MAIN
- WATER LINE
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC
- GAS LINE
- STORM DRAINAGE LINE
- SEWER MANHOLE
- STORM MANHOLE
- SHUT-OFF
- POWER POLE
- CATCH BASIN
- LIGHT POLE
- SIGN
- DECIDUOUS TREE
- CONIFEROUS TREE
- EDGE OF BRUSH/WOODS
- CHAIN LINK FENCE
- BARBED WIRE FENCE
- STOCKADE FENCE

GENERAL NOTES

1. Utilities shown do not purport to constitute or represent all utilities located upon or adjacent to the surveyed premises. Existing utility locations are approximate only. The Contractor shall field verify all utility conflicts. All discrepancies shall be reported to the Engineer. The Contractor shall contact Dig Safe (888-344-7233) prior to any construction.

2. All existing utilities not incorporated into the final design shall be removed or abandoned as indicated on the plans or directed by the Engineer.

3. The Contractor shall maintain as-built plans (with ties) for all underground utilities. Those plans shall be submitted to the Owner at the completion of the project.

4. The Contractor shall repair/restore all disturbed areas (on or off the site) as a direct or indirect result of the construction.

5. All grassed areas shall be maintained until full vegetation is established.

6. Maintain all trees outside of construction limits.

7. The Contractor shall be responsible for all work necessary for complete and operable facilities and utilities.

8. If the building is to be sprinklered, backflow prevention shall be provided in accordance with AWWA M14. The Site Contractor shall construct the water line to two feet above the finished floor. See mechanical plans for riser detail.

9. The Contractor shall submit shop drawings for all items and materials incorporated into the site work. Work shall not begin on any item until shop drawing approval is granted.

10. In addition to the requirements set in these plans and specifications, the Contractor shall complete the work in accordance with all permit conditions and any local Public Works Standards.

11. The tolerance for finish grades for all pavement, walkways and lawn areas shall be 0.1 feet.

12. Any dewatering necessary for the completion of the sitework shall be considered as part of the contract and shall be the Contractor's responsibility.

13. The Contractor shall coordinate all work within Town Road R.O.W. with Town authorities.

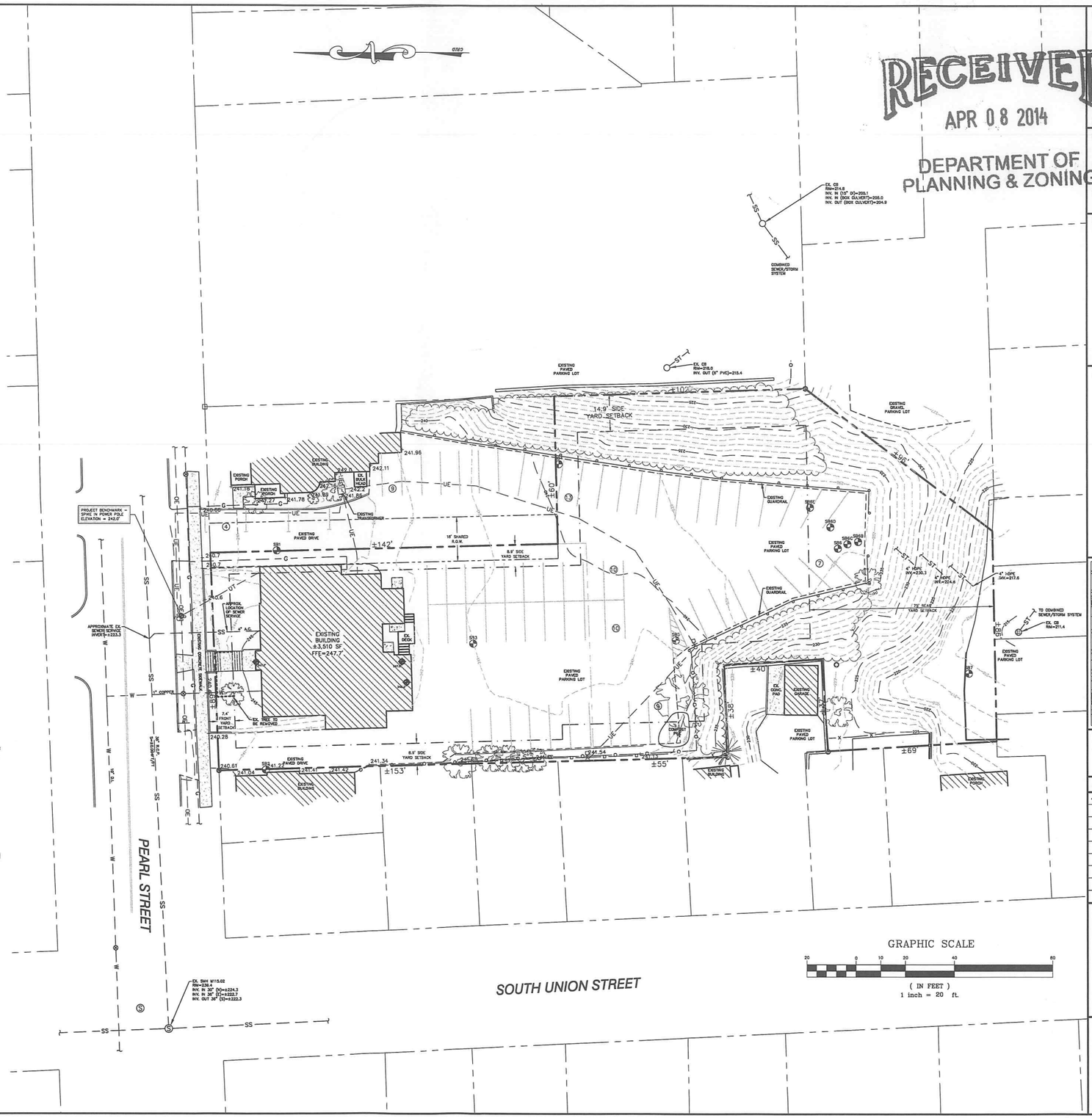
14. The Contractor shall install the electrical, cable and telephone services in accordance with the utility companies requirements.

15. Existing pavement and tree stumps to be removed shall be disposed of at an approved off-site location. All pavement cuts shall be made with a pavement saw.

16. If there are any conflicts or inconsistencies with the plans or specifications, the Contractor shall contact the Engineer for verification before work continues on the item in question.

17. Property line information is based upon a plan entitled "Subdivision of Single Lot at 253-255 Pearl St., Burlington, VT", dated Aug. 31, 1984, prepared by Knight Consulting Engineers, Inc. and recorded in the City of Burlington Land Records. This plan is not a boundary survey and is not intended to be used as one.

18. The project benchmark, of 500.0', is a spike set in power pole GMP #22. Vertical datum based on a scaled elevation from a USGS Quad Topo map. Horizontal datum based on a magnetic reading taken at the time of survey.



RECEIVED
APR 08 2014
DEPARTMENT OF PLANNING & ZONING

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
70 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN: JSO
CHECKED: PBS
APPROVED: PBS

OWNER:

PEARL LAKE LLP
247 PEARL STREET BURLINGTON VERMONT 05401

PROJECT:

PROPOSED RESIDENTIAL BUILDING
247 PEARL STREET BURLINGTON VERMONT 05401

LOCATION MAP
1" = 1000'

DATE	CHECKED	REVISION
4.8.14	PBS	LOCAL SUBMITTAL

EXISTING CONDITIONS SITE PLAN

DATE: FEB., 2014
SCALE: 1" = 20'
PROJ. NO.: 14103.01
DRAWING NUMBER: C1.0

P:\AutoCADD Projects\2014\14103.01\1-CADD Files-14103.01\Dwg\14103B.dwg, 4/7/2014 8:28:01 PM, psmiar

LEGEND

- 338 — EXISTING CONTOUR
- 336 — PROPOSED CONTOUR
- APPROXIMATE PROPERTY LINE
- APPROXIMATE SETBACK LINE
- IRON PIN FOUND
- CONCRETE MONUMENT FOUND
- SS — GRAVITY SEWER LINE
- FM — FORCE MAIN
- W — WATER LINE
- OE — OVERHEAD ELECTRIC
- UE — UNDERGROUND ELECTRIC
- G — GAS LINE
- ST — STORM DRAINAGE LINE
- SEWER MANHOLE
- STORM MANHOLE
- SHUT-OFF
- POWER POLE
- CATCH BASIN
- LIGHT POLE
- SIGN
- DECIDUOUS TREE
- CONIFEROUS TREE
- EDGE OF BRUSH/WOODS
- CHAIN LINK FENCE
- BARBED WIRE FENCE
- STOCKADE FENCE

GENERAL NOTES

1. Utilities shown do not purport to constitute or represent all utilities located upon or adjacent to the surveyed premises. Existing utility locations are approximate only. The Contractor shall field verify all utility conflicts. All discrepancies shall be reported to the Engineer. The Contractor shall contact Dig Safe (888-344-7233) prior to any construction.

2. All existing utilities not incorporated into the final design shall be removed or abandoned as indicated on the plans or directed by the Engineer.

3. The Contractor shall maintain as-built plans (with ties) for all underground utilities. Those plans shall be submitted to the Owner at the completion of the project.

4. The Contractor shall repair/restore all disturbed areas (on or off the site) as a direct or indirect result of the construction.

5. All grassed areas shall be maintained until full vegetation is established.

6. Maintain all trees outside of construction limits.

7. The Contractor shall be responsible for all work necessary for complete and operable facilities and utilities.

8. If the building is to be sprinklered, backflow prevention shall be provided in accordance with AWWA M14. The Site Contractor shall construct the water line to two feet above the finished floor. See mechanical plans for riser detail.

9. The Contractor shall submit shop drawings for all items and materials incorporated into the site work. Work shall not begin on any item until shop drawing approval is granted.

10. In addition to the requirements set in these plans and specifications, the Contractor shall complete the work in accordance with all permit conditions and any local Public Works Standards.

11. The tolerance for finish grades for all pavement, walkways and lawn areas shall be 0.1 feet.

12. Any dewatering necessary for the completion of the sitework shall be considered as part of the contract and shall be the Contractor's responsibility.

13. The Contractor shall coordinate all work within Town Road R.O.W. with Town authorities.

14. The Contractor shall install the electrical, cable and telephone services in accordance with the utility companies requirements.

15. Existing pavement and tree stumps to be removed shall be disposed of at an approved off-site location. All pavement cuts shall be made with a pavement saw.

16. If there are any conflicts or inconsistencies with the plans or specifications, the Contractor shall contact the Engineer for verification before work continues on the item in question.

17. Property line information is based upon a plan entitled "Subdivision of Single Lot at 253-255 Pearl St., Burlington, VT", dated Aug. 31, 1984, prepared by Knight Consulting Engineers, Inc. and recorded in the City of Burlington Land Records. This plan is not a boundary survey and is not intended to be used as one.

18. The project benchmark, of 500.0', is a spike set in power pole GMP #22. Vertical datum based on a scaled elevation from a UGSG Quad Topo map. Horizontal datum based on a magnetic reading taken at the time of survey.

ZONING REQUIREMENTS

Zoning District: Residential High Density (RH)
Parking District: Neighborhood

Density: 40 du/Ac. (80 w/ bonus)
Lot Coverage: 80% (92% w/ bonus)
Building Height: 35' (45' w/ bonus)

REQUIRED:
Front Yard Setback: ±5' of average of 2 adjoining properties = 7.4'±5'
Side Yard Setback: 10% or 5' (Max. required no more than 25') = 8.9', 14.9'
Rear Yard Setback: 25% or 20' (Max. required no more than 75') = 75'

PROVIDED:
Front Yard Setback: 7.5'
Side Yard Setback: 9.0'
Rear Yard Setback: 57.7'

COVERAGE CALCULATIONS

247 Pearl Street
Existing Building Coverage = ±10.1%
Proposed Building Coverage = ±23.7%

Existing Lot Coverage = ±58.4%
Proposed Lot Coverage = ±64.9%

253 Pearl Street
Existing Building Coverage = ±19.8%
Proposed Building Coverage = ±19.8%

Existing Lot Coverage = ±50.3%
Proposed Lot Coverage = ±49.8%

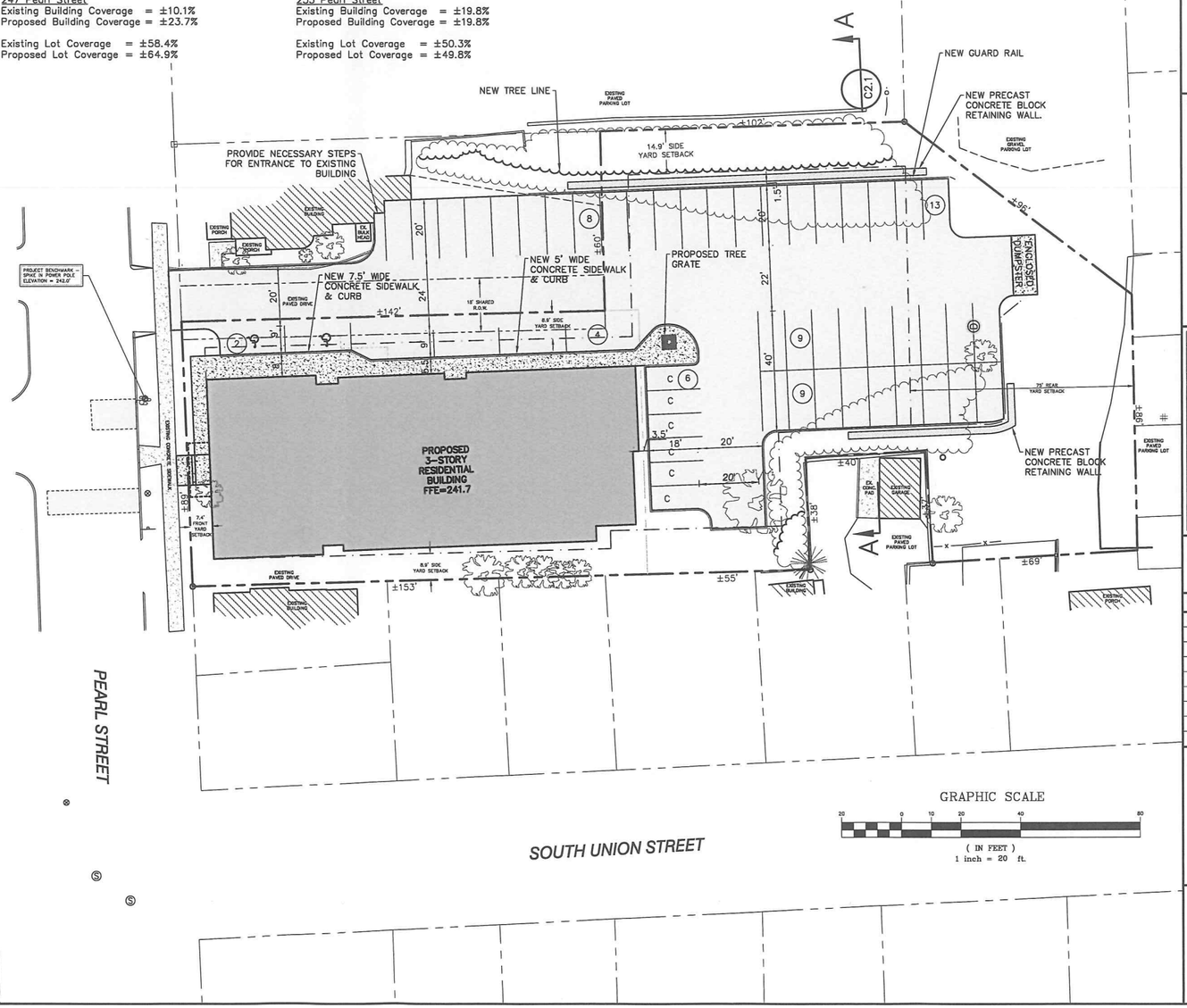
PARKING CALCULATIONS

Proposed Parking Spaces (247 Pearl St.) = 43 spaces
Required Handicap Spaces = 2 spaces (1 van accessible)

All 90° Spaces Shown = 9'X20'
All Parallel Spaces Shown = 9'x22'
C= 6 Compact Spaces Shown = 8'x18'
% compact spaces = 6/43=14.0%

Proposed parking Spaces (253 Pearl St.) = 8 spaces

RECEIVED
APR 08 2014
DEPARTMENT OF PLANNING & ZONING



SITE ENGINEER:
CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN: ACL
CHECKED: PBS
APPROVED: PBS

OWNER:
PEARL LAKE LLP
247 PEARL STREET
BURLINGTON
VERMONT 05401

PROJECT:
PROPOSED RESIDENTIAL BUILDING
247 PEARL STREET
BURLINGTON
VERMONT 05401

LOCATION MAP
1" = 1000'

DATE	CHECKED	REVISION
4.8.14	PBS	LOCAL SUBMITTAL

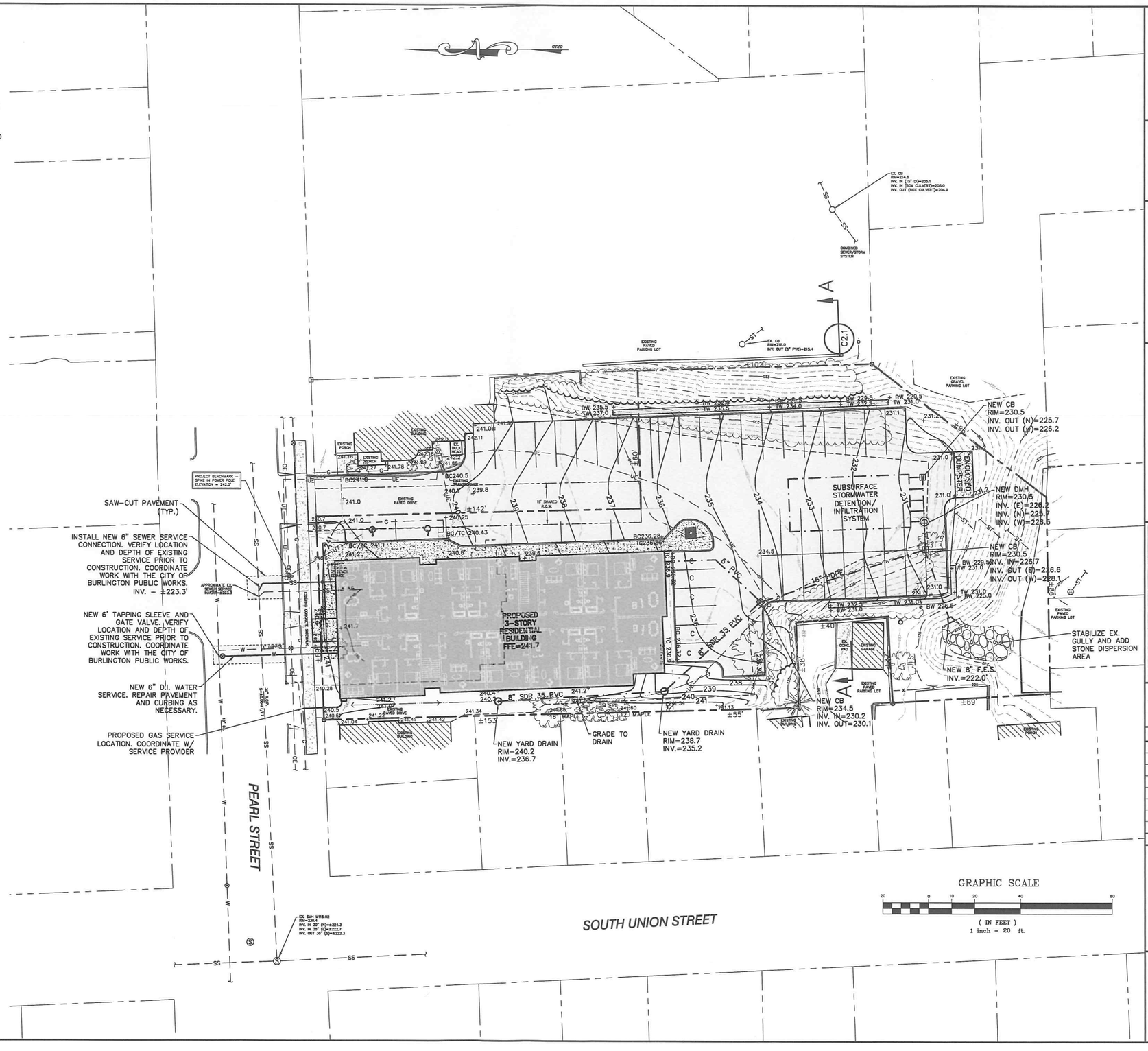
PROPOSED CONDITIONS SITE PLAN

DATE: FEB., 2014
SCALE: 1" = 20'
PROJ. NO.: 14103.01
DRAWING NUMBER: C1.1

P:\AutoCADD Projects\2014\14103.01\1-CADD Files-14103.01\Dwg\14103B.dwg, 4/7/2014 8:28:48 PM, psmiar

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- APPROXIMATE PROPERTY LINE
- APPROXIMATE SETBACK LINE
- IRON PIN FOUND
- CONCRETE MONUMENT FOUND
- GRAVITY SEWER LINE
- FORCE MAIN
- WATER LINE
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC
- GAS LINE
- STORM DRAINAGE LINE
- SEWER MANHOLE
- STORM MANHOLE
- SHUT-OFF
- POWER POLE
- CATCH BASIN
- LIGHT POLE
- SIGN
- DECIDUOUS TREE
- CONIFEROUS TREE
- EDGE OF BRUSH/WOODS
- CHAIN LINK FENCE
- BARBED WIRE FENCE
- STOCKADE FENCE



SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN: ACL
CHECKED: PBS
APPROVED: PBS

OWNER:

PEARL LAKE LLP
247 PEARL STREET
BURLINGTON
VERMONT 05401

PROJECT:

PROPOSED RESIDENTIAL BUILDING
247 PEARL STREET
BURLINGTON
VERMONT 05401

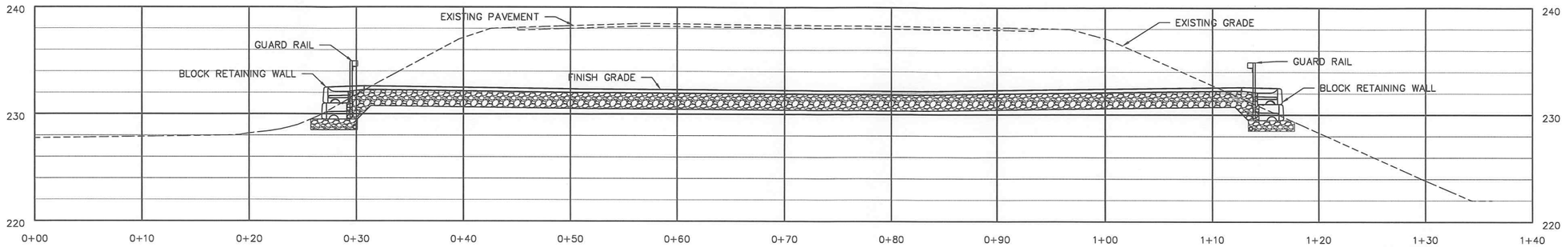
LOCATION MAP
1" = 1000'

DATE	CHECKED	REVISION
4.8.14	PBS	LOCAL SUBMITTAL

GRADING, DRAINAGE & UTILITY PLAN

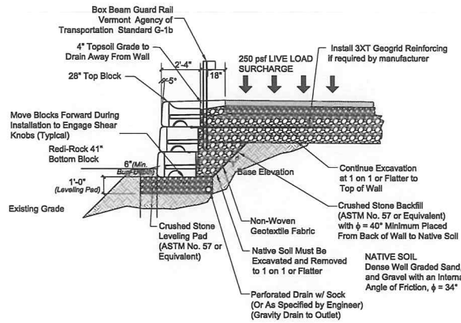
DATE: FEB., 2014
SCALE: 1" = 20'
PROJ. NO.: 14103.01
DRAWING NUMBER: C1.2

P:\AutoCADD Projects\2014\14103.01\1-CADD Files-14103.01\Dwg\14103B.dwg, 4/7/2014 8:29:18 PM, psmiar



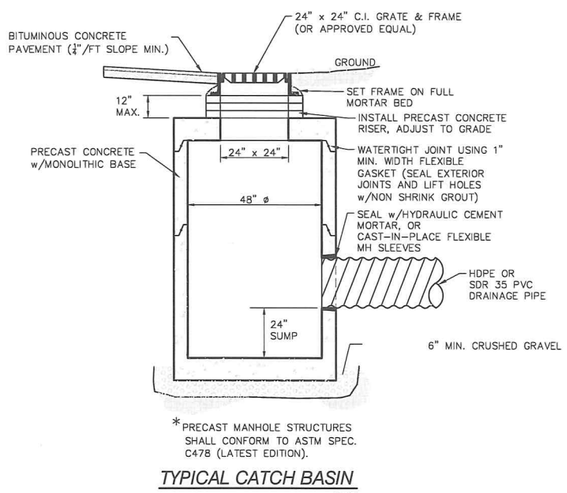
SECTION A-A

SCALE: 1"=5'



BLOCK RETAINING WALL SECTION

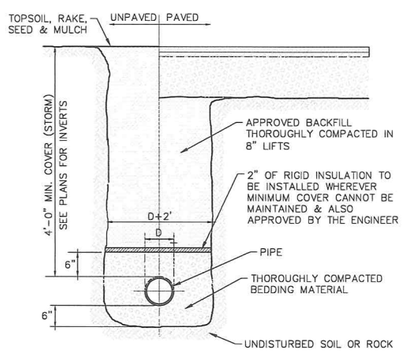
(No Scale)



*PRECAST MANHOLE STRUCTURES SHALL CONFORM TO ASTM SPEC. C478 (LATEST EDITION).

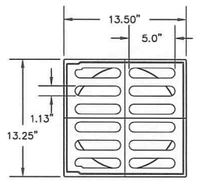
TYPICAL CATCH BASIN

N.T.S.

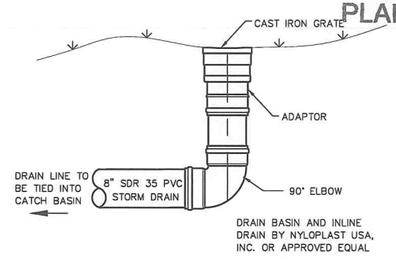


NOTES:

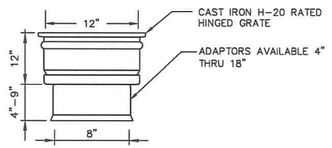
1. Compaction of backfill and bedding shall be a minimum of 90% (95% under roadway surfaces) of maximum dry density determined in the standard proctor test (ASTM D698).
2. Bedding material shall not be placed on frozen subgrade.
3. Approved backfill shall not contain any stones more than 6" in largest dimension, 2" maximum diameter within 2' of the outside of the pipe, or any frozen, or organic material.
4. Trenches shall be completely dewatered prior to placing of pipe bedding material and kept dewatered during installation of pipe and backfill.
5. In trenches with unstable materials, trench bottom shall first be stabilized by placement of filter fabric then crushed stone (3/4" maximum).
6. The sides of trenches 4' or more in depth entered by personnel shall be sheeted or sloped to the angle of repose as defined by O.S.H.A. standards.
7. Bedding material shall consist of crushed stone or gravel with maximum size of 3/4". Submit a sample to the Engineer for approval.



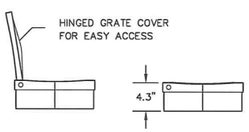
STANDARD (H-20) RATED
DRAINAREA = 62.7 SQ. INCH



INLINE DRAIN SECTION



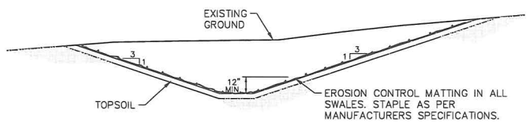
8" INLINE DRAIN



12" CAST IRON GRATE

YARD DRAIN DETAILS

N.T.S.



GRASS LINED SWALE

N.T.S.

SITE ENGINEER:
CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN: ACL
CHECKED: PBS
APPROVED: PBS

OWNER:
PEARL LAKE LLP
247 PEARL STREET
BURLINGTON
VERMONT 05401

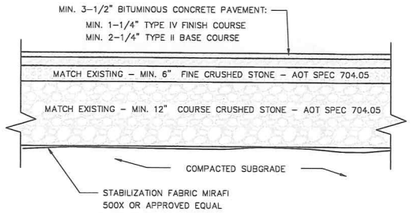
PROJECT:
PROPOSED RESIDENTIAL BUILDING
247 PEARL STREET
BURLINGTON
VERMONT 05401

LOCATION MAP
1" = 1000'

DATE	CHECKED	REVISION
4.8.14	PBS	LOCAL SUBMITTAL

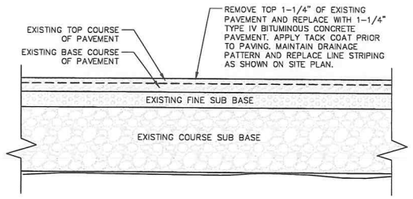
SITE SECTIONS AND DETAILS PLAN

DATE: FEB., 2014
SCALE: 1" = 20'
PROJ. NO.: 14103.01
DRAWING NUMBER: C2.1



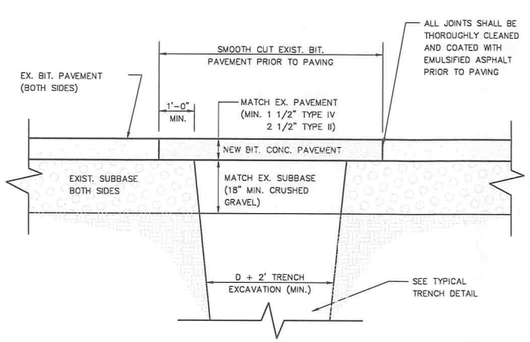
TYPICAL PARKING LOT CONSTRUCTION SECTION

N.T.S.



TYPICAL PARKING LOT RESURFACING SECTION

N.T.S.

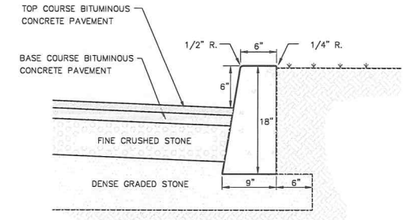


NOTES:

1. THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE-WAY TRAFFIC AT ALL TIMES DURING WORK WITHIN THE R.O.W.
2. MAINTENANCE AND PROTECTION OF TRAFFIC DURING WORK WITHIN THE HIGHWAY R.O.W. SHALL BE PROVIDED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THE CONTRACTOR SHALL NOT WORK WITHIN THE R.O.W. WITHOUT APPROPRIATE CONSTRUCTION SIGNING IN PLACE.
3. ALL BACKFILL SHALL BE MADE IN SIX (6") LIFTS AND COMPACTED TO NOT LESS THAN 95% MAXIMUM DRY DENSITY ACCORDING TO ASTM D698.
4. REPLACE EXISTING ROAD STRIPING AS NECESSARY.

REPLACEMENT OF EXISTING PAVEMENT

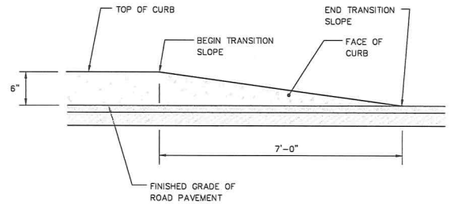
N.T.S.



1. CURBING SHALL BE CONSTRUCTED IN 10' SECTIONS WITH 1/8" JOINT BETWEEN SECTIONS.
2. CURBING EXPANSION JOINTS SHALL BE CONSTRUCTED EVERY 20' AND SHALL BE CONSTRUCTED OF MATERIAL CONFORMING TO AASHTO DESIGNATION M-153 (1/2" SPONGE RUBBER OR CORK).

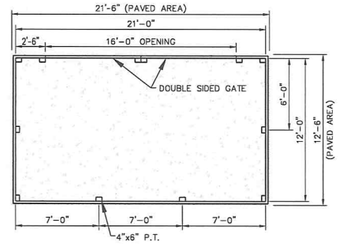
CURB DETAIL

N.T.S.

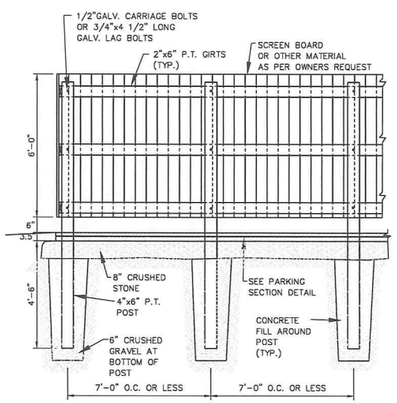


TRANSITION CURB

N.T.S.



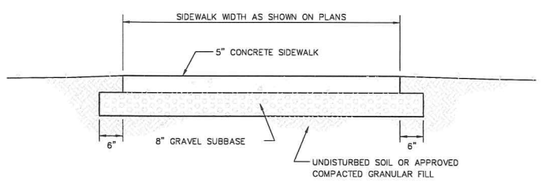
PLAN



ELEVATION

DUMPSTER ENCLOSURE

N.T.S.



NOTES:

1. EXPANSION JOINTS SHALL BE PLACED EVERY 20' AND SHALL BE CONSTRUCTED OF PREFORMED JOINT FILLER (1/4 CORK OR BITUMINOUS TYPE)
2. BETWEEN EXPANSION JOINTS THE SIDEWALK SHALL BE DIVIDED AT INTERVALS OF FIVE FEET BY DUMMY JOINTS.

TYPICAL SIDEWALK DETAIL

N.T.S.

SITE ENGINEER:
CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN: JSO
CHECKED: PBS
APPROVED: PBS

OWNER:
PEARL LAKE LLP
247 PEARL STREET
BURLINGTON
VERMONT 05401

PROJECT:
PROPOSED RESIDENTIAL BUILDING
247 PEARL STREET
BURLINGTON
VERMONT 05401

LOCATION MAP
1" = 1000'

DATE	CHECKED	REVISION
4.8.14	PBS	LOCAL SUBMITTAL

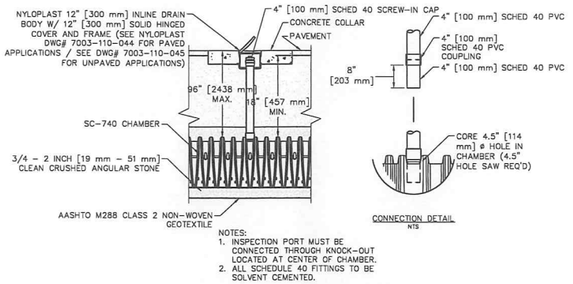
SITE, SIDEWALK & CURBING DETAILS PLAN

DATE: FEB., 2014
SCALE: 1" = 20'
PROJ. NO.: 14103.01
DRAWING NUMBER: C2.2

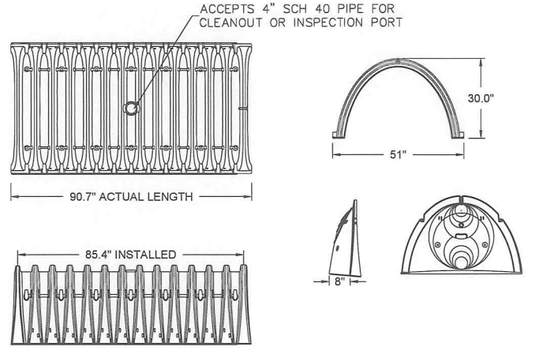
ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO M43 DESIGNATION[1]	COMPACTION/DENSITY REQUIREMENT
(D) FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISH GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THIS LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS	N/A	PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
(C) FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" [457 mm] ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THIS LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, < 35% FINES. MOST PAVEMENT SUB-BASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER	3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTION AFTER 12" [305 mm] OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" [152 mm] LIFTS TO A MIN. 95% STANDARD PROCTOR DENSITY. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs [53 kN]. DYNAMIC FORCE NOT TO EXCEED 20,000 lbs [89 kN].
(B) EMBEDMENT STONE SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4 - 2 INCH [19 - 51 mm]	3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
(A) FOUNDATION STONE BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4 - 2 INCH [19 - 51 mm]	3, 35, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A 95% STANDARD PROCTOR DENSITY[2].

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" [229 mm] (MAX) LIFTS USING TWO FULL COVERAGES WITH AN APPROPRIATE COMPACTOR. ALL DESIGN SPECIFICATIONS FOR STORMTECH SC-740 CHAMBERS SHALL BE IN ACCORDANCE WITH THE STORMTECH DESIGN MANUAL
3. THE INSTALLATION OF STORMTECH SC-740 CHAMBERS SHALL BE IN ACCORDANCE WITH THE LATEST STORMTECH INSTALLATION INSTRUCTIONS
4. THE CONTRACTOR IS ADVISED TO REVIEW AND UNDERSTAND THE INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLTION. CALL 1-888-892-2694 OR VISIT WWW.STORMTECH.COM TO RECIEVE A COPY OF THE LATEST STORMTECH INSTALLTION INSTRUCTIONS
5. CHAMBERS SHALL MEET THE DESIGN REQUIREMENTS AND LOAD FACTORS SPECIFIED IN SECTION 12.12 OF THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS



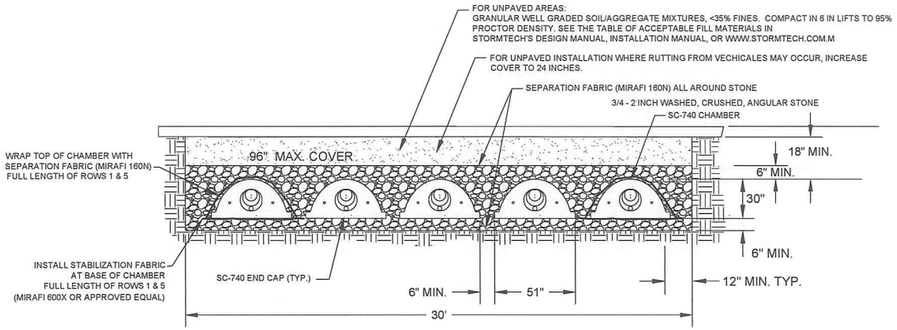
SC-740 INSPECTION PORT DETAIL
N.T.S.



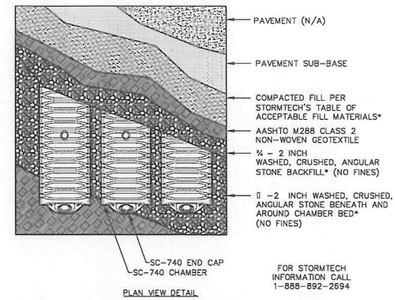
NOMINAL CHAMBER SPECIFICATIONS

SIZE (W x H x INSTALLED LENGTH)	51.0" x 30.0" x 85.4"
CHAMBER STORAGE	45.9 CUBIC FEET
MINIMUM INSTALLED STORAGE	74.9 CUBIC FEET
WEIGHT	75 LBS.

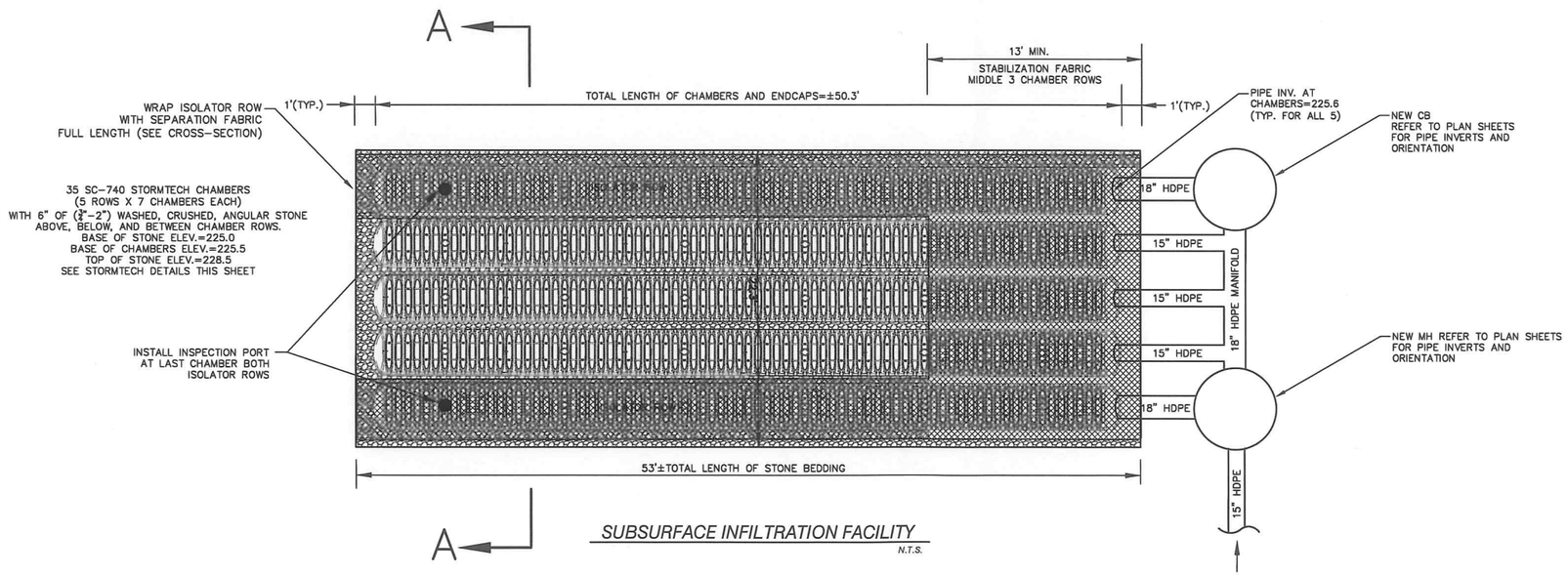
STORMTECH SC-740 CHAMBER DIMENSIONS
N.T.S.



STORMTECH SC-740 CHAMBER SYSTEM
SECTION A-A - TYPICAL CROSS SECTION DETAIL
NOT TO SCALE
* SEE STORMTECH'S DESIGN MANUAL



TYPICAL STORMTECH SC-740 CHAMBER SYSTEM
* SEE STORMTECH'S DESIGN MANUAL
N.T.S.



SUBSURFACE INFILTRATION FACILITY
N.T.S.

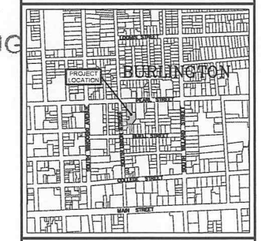
RECEIVED
APR 08 2014
DEPARTMENT OF PLANNING & ZONING

SITE ENGINEER:
CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN: ACL
CHECKED: PBS
APPROVED: PBS

OWNER:
PEARL LAKE LLP
247 PEARL STREET
BURLINGTON
VERMONT 05401

PROJECT:
PROPOSED RESIDENTIAL BUILDING
247 PEARL STREET
BURLINGTON
VERMONT 05401



LOCATION MAP
1" = 1000'

DATE	CHECKED	REVISION
4.8.14	PBS	LOCAL SUBMITTAL

SITE DETAILS

DATE: FEB., 2014
SCALE: 1" = 20'
PROJ. NO.: 14103.01
DRAWING NUMBER: C2.3

P:\AutoCADD Projects\2014\14103.011\-CADD Files-14103.011\Dwg\14103B.dwg, 4/7/2014 8:34:28 PM, psmiar

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- APPROXIMATE PROPERTY LINE
- GRAVITY SEWER LINE
- FORCE MAIN
- WATER LINE
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC
- TELEPHONE LINE
- GAS LINE
- STORM DRAINAGE LINE
- SEWER MANHOLE
- STORM MANHOLE
- HYDRANT
- SHUT-OFF
- POWER POLE
- GUY WIRE
- CATCH BASIN
- LIGHT POLE
- SIGN
- DECIDUOUS TREE
- CONIFEROUS TREE
- EDGE OF BRUSH/WOODS
- CHAIN LINK FENCE

EROSION CONTROL NOTES

1. Contact City of Burlington DPW Stormwater administrator at least 24 hours prior to start of construction activity.
2. Install erosion and sediment control measures prior to earth disturbance. Erosion control measures shall be inspected and repaired daily in order to minimize the discharge of sediment to the City drainage system. Maintain sediment controls until site is fully stabilized.
3. The access points to the project and nearby portions of surrounding City streets shall be inspected daily and prior to forecast precipitation events. Sediment deposited by vehicle tracking shall be removed by sweeping as needed and prior to forecast precipitation.
4. No vehicle or equipment parking or material staging shall occur within the City ROW without permission from the City of Burlington Department of Public Works.
5. The new and existing stormwater drainage system shall be free from sediment and construction debris at the completion of construction, and prior to transfer of the site to the owner.
6. Disturbed areas shall be stabilized with topsoil, seed and mulch, stone, concrete, pavement, or other approved means within 14 days of initial disturbance.
7. Silt fence or other approved silt barrier shall be installed at the downslope perimeter of all soils stockpiles.
8. The contractor shall take all reasonable means necessary to keep the new stormwater infiltration system free of sediment and debris during the construction period.

INSTALL A STABILIZED CONSTRUCTION ENTRANCE

INSTALL EROSION CONTROL MATTING AFTER TOPSOIL AND SEEDING HAVE BEEN PLACED ON ALL DISTURBED AREAS. (TYP.)

INSTALL INLET PROTECTION AROUND CATCH BASIN (TYP.)

PROPOSED 3-STORY RESIDENTIAL BUILDING FFE=241.7

PROJECT BENCHMARK – SPIKE IN POWER POLE ELEVATION = 242.0'

INSTALL EROSION CONTROL MATTING AFTER TOPSOIL AND SEEDING HAVE BEEN PLACED ON ALL DISTURBED AREAS. (TYP.)

INSTALL INLET PROTECTION AROUND CATCH BASIN (TYP.)

PEARL STREET

SOUTH UNION STREET

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

RECEIVED
APR 08 2014
DEPARTMENT OF PLANNING & ZONING

SITE ENGINEER:
CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN ACL
CHECKED PBS
APPROVED PBS

OWNER:
PEARL LAKE LLP
247 PEARL STREET
BURLINGTON
VERMONT 05401

PROJECT:
PROPOSED RESIDENTIAL BUILDING
247 PEARL STREET
BURLINGTON
VERMONT 05401

LOCATION MAP
1" = 1000'

DATE	CHECKED	REVISION
4.8.14	PBS	LOCAL SUBMITTAL

PROPOSED EPSC SITE PLAN

DATE: APRIL, 2014
SCALE: 1" = 20'
PROJ. NO.: 14103.01
DRAWING NUMBER: C1.3

P:\AutoCADD Projects\2014\14103.01\1-CADD Files-14103.01\Dwg\14103B.dwg, 4/7/2014 8:29:52 PM, psmiar

EROSION CONTROL REQUIREMENTS

PART 1 – GENERAL

1.01 SUMMARY

A. The work under this section includes but is not limited to providing all labor, equipment and materials for the installation of all required site related erosion control measures. If not otherwise directed on the plans, erosion control shall be in strict conformity with all City Department of Public Works requirements, as well as the latest revision of the "Low Risk Site Handbook for Erosion Prevention and Sediment Control " available from the VT DEC Stormwater Section at:

www.anr.state.vt.us/dec/waterq/stormwater/htm/sw_cgp.htm

1.02 GENERAL NOTES

A. The discharge of sediment laden water from the project site is prohibited. All discharged water from dewatering operations shall discharge into a temporary sedimentation basin.

B. If soil disturbance will be required later than October 15th or earlier than April 15, the contractor shall be responsible for maintaining compliance with the winter stabilization practices and requirements for winter construction found in the "Low Risk Site Handbook for Erosion Prevention and Sediment Control".

C. Contractor shall mark the site boundaries to identify the limits of construction. Fence is required on any boundary within 50 ft. of a stream, lake, pond or wetland.

D. All stockpile material (topsoil, borrow, etc.) shall have silt fence installed around the downgradient portion of the stockpile perimeter. Seed and mulch stockpiled material as soon as possible to prevent soil erosion and sedimentation off site. Locate stockpiles on the uphill side of the disturbed areas, if possible. During windy conditions, stockpiled material shall be covered or watered appropriately to prevent wind erosion.

E. Slopes greater than 1:3 shall have erosion control netting installed to stabilize the slope and reduce the erosion potential. Install netting over mulched slopes so that all parts are in contract with the soil and mulch. Pin netting with wire staples 3' o.c. to ensure full bonding with soil surface.

F. Install stone check dams in grass–lined swales 50 feet on center to prevent silt from washing into the drainage system during construction. Check dams shall be removed when vegetation is established.

G. Control dust through the application of calcium chloride or water. An average application of one pound of calcium chloride per square yard of exposed area should be considered for each treatment. The exact number of applications and amount of dust controller shall be based upon field and weather conditions. It shall be spread in such manner and by such devices that uniform distribution is attained over the entire area on which it is ordered placed.

PART 2 – PRODUCTS

2.01 EROSION CONTROL NETTING

A. Jute netting shall consist of undyed and unbleached yarn woven into a uniform open plain weave mesh.

2.02 EROSION CONTROL MATTING

A. Where required on the plans or where directed by the Engineer, erosion control blankets (matting) shall be North American Green S75 unless otherwise shown on plans

2.03 FILTER FABRIC

A. When filter fabric is required, it shall conform to the requirements of Mirafi 140NS or approved equivalent.

2.04 CALCIUM CHLORIDE

A. Calcium chloride shall conform to the requirements of AASHTO M 144. Either regular flake calcium chloride, Type 1 or concentrated flake, pellet or other granular calcium chloride, Type 2, may be used.

2.05 WATER

A. All water used shall be clean and free of harmful amounts of oil, salt, acids, alkalies, sugar, organic matter and other substances injurious to the finished product, plant life or the establishment of vegetation.

PART 3 – EXECUTION

3.01 STONE CHECK DAM INSTALLATION

A. Stone check dams to be constructed and installed as outlined in the Low–Risk Handbook or as instructed by the Engineer. Once vegetation is established and the check dams are no longer needed for erosion control, they shall be removed.

3.02 SILT FENCES

A. The silt fences shall be constructed in accordance with the construction detail. The fence shall generally be placed 10 feet from the toe of the slope or as shown on the plans. The ends of the fence shall be placed uphill to form a horseshoe shape to trap all runoff.

B. The silt fences shall be inspected periodically for damage or build–up of sediments. All damaged fences shall be repaired or replaced. Sediment deposits shall be removed from the fence as they build up and be placed in an area where there is no danger of further erosion.

3.03 EROSION MATTING

A. Erosion matting shall be placed on all grass–lined ditches with profile grades exceeding 5.0% and shall be placed and maintained in accordance with the Vermont Agency of Transportation Standard Specifications Sections 654 and 755.07.

3.04 RESTORATION

A. As soon as construction is completed in a given area, it shall be topsoiled, seeded, and mulched.

3.05 GRASS–LINED DITCHES

A. All ditches that are not stone–lined shall be topsoiled, seeded, and mulched. Any area which shows signs of erosion shall be reseeded immediately and maintained until permanent vegetation is established.

3.06 TEMPORARY DIVERSION DITCH

A. Stabilize any diversion berms or flow channels with with seed and straw mulch or erosion control matting immediately after installation. Channels with slopes greater than 5% shall be lined with 4 inch stone. The diversion berm shall remain in place until disturbed areas are completely stabilized.

3.07 MAINTENANCE

A. All erosion control measures shall be inspected weekly and repaired and/or replaced as needed.

B. All erosion control measures shall be inspected after periods of heavy rain.

C. The stabilized road entrance shall be top dressed with additional stone should the existing stone become clogged with sediment.

D. Hay or straw mulch is subject to wind action. Mulch may require anchoring as the weather conditions warrant.

3.08 WINTER CONSTRUCTION

A. If, due to the project schedule, construction during the winter months is necessary, the Contractor shall follow the winter construction procedures outlined in the "Low Risk Site Handbook for Soil Erosion and Sediment Control " as well as the following procedures:

1. Minimize disturbance between October and May.
2. All erosion control measures shall be in place prior to the ground freezing.
3. For areas to be stabilized by vegetation, seeding shall be completed no later than september 15 to ensure adequate growth and cover.
3. All non–vegetative stabilization must be completed by October 15.
4. Where mulch is specified, apply roughly 3 inches with an 80–90% cover. Mulch should be tracked in or stabilized with netting in open areas vulnerable to wind.

TEMPORARY SEEDING

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes:
1. Furnishing all labor, materials and equipment to complete all seeding required to provide temporary protection against wind or water erosion.

1.02 GENERAL NOTES

A. Adequate seed bed preparation, use of quality seed, and timely planting are required to achieve a good stand of vegetation to control erosion. Within 48 hours of final grading, the exposed soil must be seeded and mulched or covered with erosion control matting.

PART 2 – PRODUCTS

2.01 GENERAL

A. At a minimum, all products shall meet the requirements of Section 651 of the VAOT Standard Specifications for Construction.

PART 3 – EXECUTION

3.01 SEEDING CONDITIONS

A. All essential grading and all temporary structures, such as diversions, dams, ditches, and drains needed to prevent gullying and reduce siltation, should be completed prior to seeding.

B. All areas of disturbance must have temporary or permanent stabilization within 14 days of initial disturbance. After this time, any disturbance in the area must be stabilized at the end of each work day.

C. Stabilization is not required if earthwork is to continue in the area within the next 24 hours and there is no precipitation forecast for the next 24 hours.

3.02 SEED AND SEEDING

A. Seed and seeding rates may be selected from the table below. The selection will be based on the time of year the seeding is to be made and the length of time the vegetation is to afford the protection. The seed should be spread uniformly over the area. After seeding, the soil should be firmed by rolling or packing. Where rolling or packing is not feasible, the seed should be covered lightly by raking, disking, or dragging.

B. Plant Selection and Seeding Rates:

Species	Per Acre	Per 1000 Sq. Ft.	Remarks
Annual Ryegrass	40 lbs.	1 lb.	Grows quickly, but is of short duration. Use where appearances are important. Seed early spring and/or between August 15 and September 15. Cover the seed with no more than 0.25 inch of soil.
Perennial Ryegrass	30 lbs.	0.7 lbs.	Good cover which is longer lasting than annual ryegrass. Seed between April 1 and June 1 and/or between August 15 and September 15. Mulching will allow seeding throughout the growing season. Seed to a depth of approximately .5 inch.

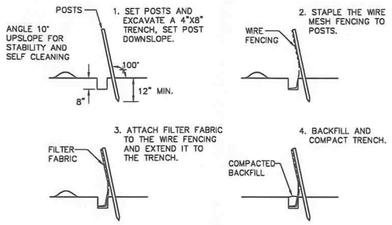
3.04 MULCHING

A. Where it is impracticable to incorporate fertilizer and seed into moist soil, the seeded area should be mulched to facilitate germination.

3.05 MAINTENANCE

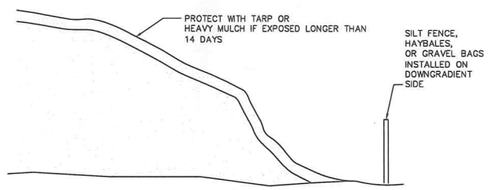
A. If the seeding fails to grow, it may need to be re–established to provide adequate erosion control.

B. If weeds become a problem, they may need to be controlled by mowing.



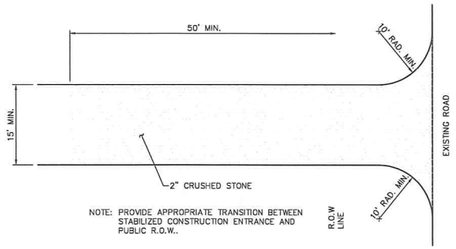
SILT FENCE CONSTRUCTION DETAIL

N.T.S.



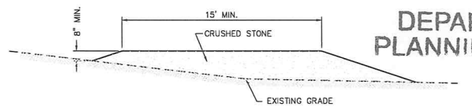
TEMPORARY STOCKPILE DETAIL

N.T.S.



NOTE: PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND PUBLIC R.O.W..

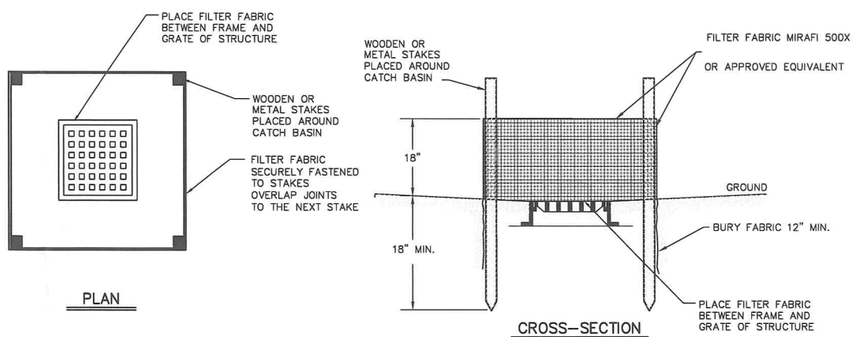
PLAN



CROSS–SECTION

STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

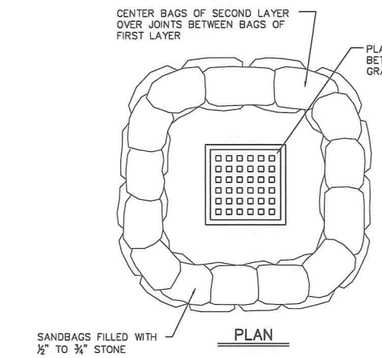


PLAN

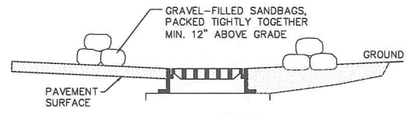
CROSS–SECTION

CATCH BASIN INLET PROTECTION (WITH FABRIC)

N.T.S.



PLAN



CROSS–SECTION

CATCH BASIN INLET PROTECTION (GRAVEL BAGS)

N.T.S.

RECEIVED
APR 08 2014
DEPARTMENT OF PLANNING & ZONING

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

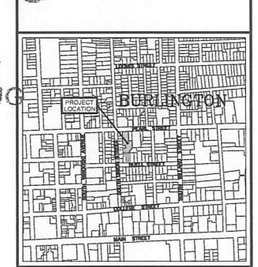
DRAWN: JSO
CHECKED: PBS
APPROVED: PBS

OWNER:

PEARL LAKE LLP
247 PEARL STREET
BURLINGTON
VERMONT 05401

PROJECT:

PROPOSED RESIDENTIAL BUILDING
247 PEARL STREET
BURLINGTON
VERMONT 05401



LOCATION MAP
1" = 1000'

DATE	CHECKED	REVISION
4.8.14	PBS	LOCAL SUBMITTAL

EPSC DETAILS

DATE: FEB., 2014
SCALE: 1" = 20'
PROJ. NO.: 14103.01

DRAWING NUMBER: C2.4

P:\AutoCADD Projects\2014\14103.011-CADD Files-14103.011\Dwg\141038.dwg, 4/7/2014 8:35:11 PM, psmiar